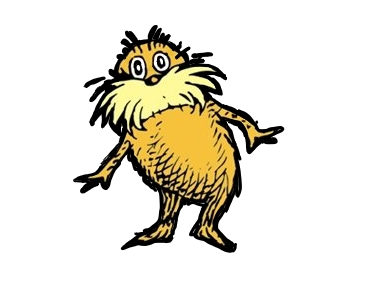
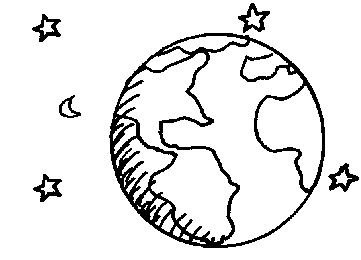
Helping the Lorax:

Let’s Talk About Energy!

By Ms. Crook



Way back when, a long time ago, the Earth was clean. The water, the air, and the soil were healthy.



Unfortunately, things have changed and the Earth is not as healthy as it used to be. People need to change their actions to make the world cleaner. One way to do that is *reduce* how much energy we use and *change* how we get energy.

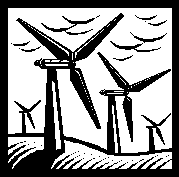


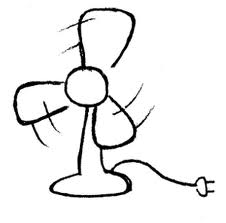
What is energy?

Energy makes things happen! Energy can make things hot or cold, bright or loud. It can make things move. Energy is used to do work.

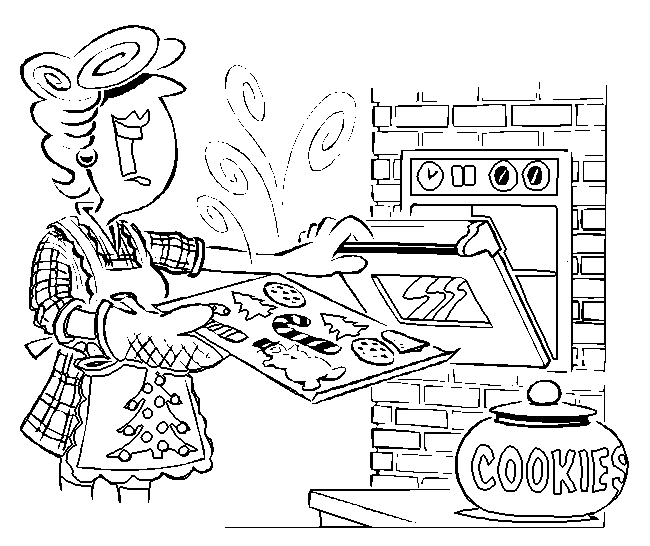
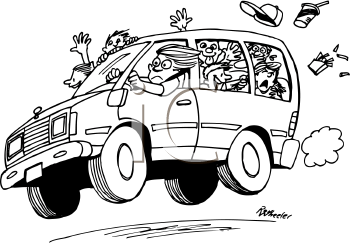
There are different kinds of energy. When the sun shines it gives us light. The sun also gives us heat. Both heat and light are kinds of energy.

When you run or jump or hop or skip, that’s energy too! Everything that moves uses energy. Look at the pictures. In each picture, a kind of energy is being used.





Energy is in everything.  We use energy to do everything we do, from playing basketball to baking cookies to sending astronauts into space -- energy is there, making sure we have the power to do it all.

Energy can take a wide variety of forms - heat, light, mechanical, electrical, chemical, and nuclear energy.  

There are two kinds of energy: renewable, and non-renewable. If you can renew something you can make it just like new again!

Renewable energy is an energy source we can use over and over. Non-renewable energy is an energy source we are using up and cannot make again right away. If we use up our non-renewable energy like the Onceler used up all Truffula Trees (except some seeds), there would be no more.

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| --- | --- |
| Renewable Energy | Non-renewable |
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Which kind of energy do you think the Lorax would prefer: renewable or non-renewable? Why?

I think the Lorax would prefer renewable forms of energy because you can make more of it easily.

We use all these energy sources to generate the electricity we need for our homes, businesses, schools, and factories. [Electricity](http://www.kids.esdb.bg/electricity.html) turns our computers, lights, refrigerators, washing machines, and air conditioners, on.

We use energy to run our cars.  The gasoline we burn in our cars is made from oil.  We use energy to barbeque or fly in a hot-air balloon.



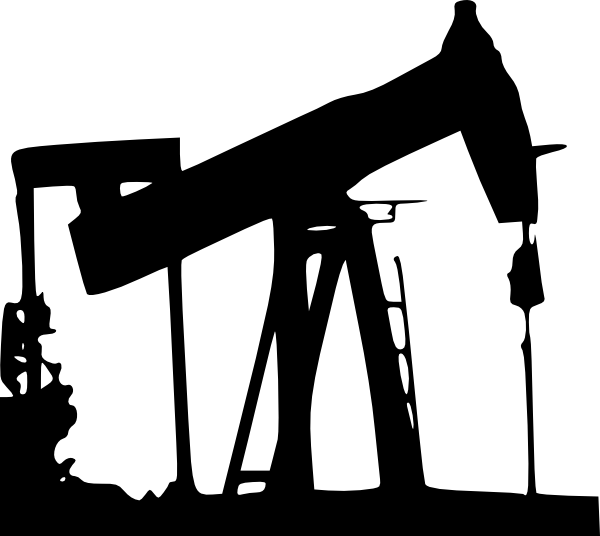
Non-renewable Forms of Energy:

Oil

Oil was formed from the remains of animals and plants that lived millions of years ago before the dinosaurs. Over the years, their remains were covered by layers of mud.  Heat and pressure from these layers helped the remains turn into oil.

http://www.kids.esdb.bg/images/mozill16a.gif

Oil is a smelly, yellow-to-black liquid and is usually found underground.  Oil is drilled out of the earth.



Oil can destroy animal homes when it is transported around the world. When oil spills occur, ecosystems are destroyed. When it is used, it pollutes the planet. Watch out Brown Barbaloots!

Non-renewable Forms of Energy:

Coal

Coal is a black rock. Coal is a nonrenewable energy source because it takes millions of years to create. The energy in coal comes from the energy stored by plants that lived hundreds of millions of years ago. Coal has been buried deep under the earth for all those years.

Getting coal out of the ground can be dangerous for people. Sometimes people destroy mountains and animal homes to get coal. When coal is burned, it can make people and animals sick. Watch out Swamee Swans!

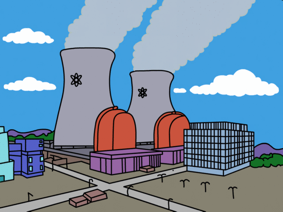


Nuclear Energy:

Nuclear energy is energy in the nucleus of an atom. Atoms are tiny particles that make up every object in the universe. There are enormous amounts of energy in the bonds that hold atoms together.

Nuclear energy can be used to make electricity. But first the energy must be released. It can be released from atoms by putting more than one atom together or by taking an atom apart!

Nuclear power makes radioactive waste. This waste is like poison for people, plants, and animals. This is not good for us!



Renewable Sources: Solar

“Solar” is the Latin word for “sun” – and it’s a powerful source of energy. In fact, the sunlight that shines on the Earth in just one hour could meet world energy demand for an entire year!  
We can use solar power in two different ways: as a heat source, and as an energy source. People have used the sun as a heat source for thousands of years.

Families in ancient Greece built their homes to get the most sunlight during the cold winter months.

Solar energy does not pollute the Earth!

Wind

Biomass (multiple kinds)

Water

Geothermal



**Top 10 Rules for Saving Energy**

http://www.kids.esdb.bg/images/lamp_l.gif**1**. Shut off the lights when you’re done using them, and turn off the TV, computer, video games and other electrical stuff when you leave the room.

**2.** DO lower the thermostat during the winter. To keep warm without wasting energy, put on a sweatshirt or snuggle under a blanket.

http://www.kids.esdb.bg/images/refrigerator_l.jpg**3.** DON'T leave the refrigerator door open. Every time you open the door, up to one-third of the cold air can escape.

http://www.kids.esdb.bg/images/switch-calculator_l.jpg**4.** DO replace a burnt-out light bulb with a new compact fluorescent bulb. Fluorescent bulbs use 75 percent less energy, and they last 10 times longer.

**5**. DO remind grown-ups to use cold water in the washing machine. Hot water won’t get the clothes any cleaner, and it wastes a lot of energy.

**6**. DO turn off dripping faucets. One drop per second can add up to 165 gallons of hot water a month - that's more than one person uses in two weeks!

**7.** DON’T take a long bath – take a short shower instead. It might take 25 gallons of hot water to fill the bathtub, compared to only seven gallons for a quick shower.

**8.** DO close the curtains during hot summer days to block the sun. During the winter, keep the curtains open.

**9.** Help a grown-up put plastic sheeting on windows. Blocking cold drafts is called “weatherizing” and it can save a lot of energy.

**10.** DO help your mom or dad plant a tree to help shade your house on hot summer days.